

BASIC RSR



the 43 teleprinter



HOW TO OPERATE

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48 KCB Speedist Feed Teleprinter



42 KCB Printer Feed Teleprinter

HOW TO OPERATE INSTRUCTIONS (Pages 1 Through 11)

INTRODUCTION

The 43 Basic 858 Teleprinter provides character-at-a-time keyboard-printer send-receive operation. Transmission speeds are 10 characters per second (cps) (100-ryps) or 30 cps (300-ryps) and can be selected by the operator to match the remote station.

The 43 Teleprinter may be connected to an external communications device (modem) which may be associated with a telephone for connections and for transmission of data. A permanent connection via private line may also be used in fixed arrangements.

When connected directly to an associated modular telephone, calls are originated in a manner similar to regular telephone calls and can be answered either automatically or manually. The telephone can be used for normal voice communication or data messages can be exchanged over the telephone line using controls on the 43 Teleprinter.

In some arrangements the 43 Teleprinter may be connected directly to a computer or remote terminal.

On spaced-out feed printers, messages with up to 132 characters per line are printed on 12 inch wide spaced-out feed paper. The paper may be fed from a supply box or limited amounts can be placed in a paper holder that clips on the rear of the teleprinter. (See Page 8 for paper suppliers.)

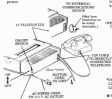
On electric feed printers, messages up to 80 characters per line are printed on 8.5 inch wide roll type paper. The roll is held in a support attached to the rear of the teleprinter.

The ribbon is part of a cartridge that can be readily replaced with the cover open. Replacement ribbon cartridges can be obtained from Teletype Corporation (see Page 8). An order form is included with each new ribbon.

A padded directory card holder under the front of the keyboard may be used to write in frequently used telephone numbers and some key combinations (see Page 11). Responses to standard operating features should be recorded on the reverse side of the card.

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- Make sure to power cord and modular telephone cords are used to any external communications device are connected in direct before turning on POWER.



- Trans. can proceed to integration by depositing record
book of 200 1000 articles.

- When power is first turned on, the print head will move fully left, and the **TEST RESULT** key on the operator console will light. During normal operation, one of the three operational mode control keys should always be lit, indicating power is on.

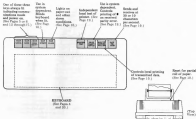


- *On units with a directly connected telephone, the LOCAL and TALK READY lamps are labeled LOCAL-TALK and AUTO ANSWER, respectively.

- Power should normally be left on to automatically answer incoming calls or arrangements or equipped as number data messages. However, when not in use, the power to the interpreter may be turned off without affecting the normal use of the telephone.

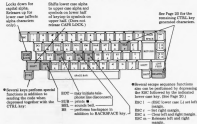
OPERATIONAL CONTROLS AND STATUS INDICATORS

■ The use and function of the operational control and status indicators should be reviewed before the 43 Teleprinter is operated locally or remotely.



KEYBOARD LAYOUT

- The keyboard is operational locally in the Local mode and on-line in the Data mode.



Procedures for Arrangements Without an Associated Telephone Directly Connected to the Terminal

- Establishing connection and transferring to the Data mode on these arrangements is basically under the control of the directly-connected communications device (console) and its associated telephone over the public-network or, without a telephone over private lines. In these arrangements terminals are directly connected to the distant terminal or computer. One of these external devices should be specified locally since many variations are possible, i.e., pushbuttons on console or on phone, exclusive keys, automatic answer, etc.
- The procedures as shown below, that normally apply to operation of the console of the terminal, should be followed:
 - Before transferring a telephone call to the Data mode (call originated or answered) on to place terminal in a ready condition:
 1. Turn on ac power (see Page 11)
 2. Clear any alarm condition (paper-out, cover open).
 3. Depress TERM READY key (if not lit). Key should light.
 - Transfer to Data mode:
 - The DATA key lights under control of the external device or distant station:
 1. Data may be sent or received on-line only when the DATA key is lit and the LOCAL key is not lit.
 2. On some arrangements the DATA key may light immediately without the TERM READY key being lit.
 - To disconnect a telephone call to DATA mode:
 - Call may be disconnected as follows:
 1. An OFF code is received. (TERM READY key may light.)
 2. The LOCAL key is depressed. (LOCAL key will light.)
 3. Paper-out and light received line feeds (LOCAL key will light.)
 4. Other log-out procedures, loss of data signals, etc.

Procedures for Arrangements With an Associated Telephone Directly Connected to the Terminal

- Telephone calls must be originated and answered as follows in order to send and receive messages or calls. Calls can also be disconnected as described below. Power must be on to complete a data call (see Page 13).



■ To Originate a Call:

1. LOCAL TALK key lit. Express if not lit. (Not in normal manner. (If dial tone is not heard, hangup immediately.)
2. Listen for Data tone or talk:
 - If tone is heard, transfer to Data.
 - If no tone is heard, talk, then transfer to Data when agreed.
3. Transfer to Data mode by depressing DATA key and hangup. Key lights (may flash before lighting).
4. Data transmission may begin.

■ To Answer a Call With AUTO ANSWER Key Lit. (May be depressed to light.)

1. No action required. Phone rings once. DATA key lights and AUTO ANSWER key extinguishes.
2. Data transmission may begin.

■ To Answer a Call With LOCAL TALK Key Lit. (Depress if not lit.)

1. When phone rings lift handset and talk.
2. When agreed, transfer to data by depressing DATA key and hang up.
3. Key lights (may flash before lighting).
4. Data transmission may begin.

■ To Disconnect a Call:

1. In Data mode:
 - Depress the LOCAL TALK key or
 - Depress BOY or when hang-up procedure or
 - Transfer to Automatic Answer mode.
2. In Local Talk mode:
 - Hang up handset.

Note: Call may also disconnect from remote station, such as received BOY. See the backside of the directory card for any exception to this function, Option-4000.

KEYBOARD PRINTER OPERATION

- The keyboard printer can be operated locally with the **LOCAL** or **PC/CA-LOCAL** key or as a line with the **DATA** key.

■ Signal Bell

The signal bell sounds when characters are received across character buffers and at the right margin, in margin at 10, 12 and 14. Also sounds at left margin when attempting to continue and when an interrupt is sent.

■ Local Return Line Feed

The carriage is returned and the paper advances one line when the **LOCAL RETURN** key is repeated rapidly. No carriage is sent on line

■ Printer

The printer copies off printable data strings except that in full duplex (Data Mode only) the printer copies received data only.

■ Margin Setting

When power is turned on, the left and right-hand printing margins are reset to 1 and 14 respectively (line 1 and 14) on character feed. There may be an or delayed loading or change to using the margin expansion. See Page 4. The change either results automatic, loads must be made.

■ Indenture Mode

The next printing location of the print head and the position for setting left and right hand margins is automatically the print head moved at the print indicator scale. The print head moves back when printing resumes after 1 second delay.

LEFT PRINTED CHARACTER IN NEXT PRINTING POSITION

CENTER OF NEXT PRINTED CHARACTER

PRINT HEAD NUMBER AFTER 1 SECOND DELAY (Range of 101 and 102, Position 100 Character Position)

POSITION OF PRINT HEAD NUMBER BEFORE 1 SECOND DELAY

PRINT INDICATOR SCALE



TELEPRINTER SUPPLIES MAINTENANCE

It is your responsibility to keep the teleprinter equipped with sufficient paper and ribbon. In addition, an adequate supply of these items should be retained and kept in storage.

Ribbon

Only cartridges with ribbon designated for use with 42 Teleprinter should be used. Teletype part number is 430635.

The cartridge with ribbon can be ordered from Teletype Corporation, 5045 Touhy Avenue, Skokie, IL 60076. An order form included with each new cartridge may be used for this purpose or established ordering procedures may be followed for large orders.

The ribbon should be replaced whenever it becomes faded or print density becomes light. After the first few ribbons, replacement ribbons should produce 2 million or more legible characters of printing.

Paper

Paper for the 42 Specified Feed Teleprinter must be 12 inch wide specified feed. The original and up to two-copy multi-copy forms may be used. Paper frequently used with such teleprinter is single-ply and has 8-1/2 inch hole to provide 11 inch x 8-1/2 inch copy when the sections are removed. This single-ply 12 pound basis paper may be obtained from the suppliers listed below or other suppliers.

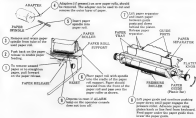
Wallace Business Forms Inc.
444 W. Grand Ave.
Chicago, IL 60610
Cat. No. E-6874

Explosive Products Co.
234 W. Page
Orem, UT 84057
Cat. No. 1-1988-157

Paper for the 42 Precision Feed Teleprinter should be standard 8-1/2 inches wide, single-ply, furnished in 5 inch maximum diameter rolls with a 7 inch diameter spindle hole.

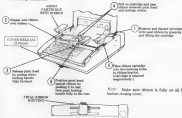
INSTALLING PAPER (Previous Find)

- Install paper as shown after removing the unused paper from the printer. It is not necessary to turn off power or open the cover when replacing the paper but to avoid loss of data, paper should be replaced when the printer terminal stops reading.



INSTALLING RIBBON

- ❗ **Install ribbon as shown after unlatching the print head and opening cover. (Alarm lamp lights.) App data entered with the cover open will not be printed and the keyboard and operational controls will be disabled. Power map remains on.**



NOTE: Make sure ribbon is fully on all four rollers before closing cover.

SUPPLEMENTARY OPERATIONAL INFORMATION
(Pages 111 Through 114)

LOCAL TALK MODE KEY

(Arrangements With a Directly Connected Telephone)



Key lights in Local Talk mode.

- The Local Talk mode can be entered:
 - At any time, by momentarily depressing the LOCAL TALK key. Will disconnect call in Data mode.
 - By depressing the PRINT/TEST key. (See Page 114.)
 - Opening the cover or removing paper in the Automatic Answer mode.
 - Receiving right-line feeds in the Data mode after paper-out alarm.
- The telephone is enabled for normal use and the keyboard printer can be operated locally off-line in the Local Talk mode. See Page 8 for telephone and Page 7 for keyboard-printer operation.
- The Local Talk mode can be terminated by:
 - Depressing AUTO ANSWER key.
 - Transferring call to Data mode.
 - Turning off power.
- Can be used to clear Loop-back mode or immediately stop flashing of DATA key when a call is answered.

(Arrangements With No Directly Connected Telephone)



Key lights in Local mode.

- The keyboard printer can be operated locally off-line in the Local mode. (Telephones associated with a local communications device may be able to operate regardless of the condition of the LOCAL lamp.)
- The Local Talk mode can be entered:
 - At any time, by momentarily depressing the LOCAL TALK key. This key must be depressed.
 - When PRINT/TEST key is depressed.
 - Opening the cover or by removing paper in the Automatic Answer mode.
 - Receiving right-line feeds in the Data mode after paper-out alarm.

(Applicable With a Directly Connected Modular Telephone)



Key lights on Data and when in Analog Loop-Back.

• Data can be sent or received either in the Data mode only.

• The Data mode can be entered:

- Automatically -- following a telephone call or Analog Loop-Back in the Automatic Answer mode.
- Manually -- after a telephone connection has been established in the Local Talk mode by manually depressing the DATA key before hanging up.

• The Data mode will be terminated disconnecting the call when:

- Eight line feeds are received after paper-out alarm. (See Page 14.)
- The mode is manually transferred to automatic Answer (Page 14) or Local Talk (Page 14).

- The character SCC (STEL D on the Model 44 keyset) is received.
- Data signals from the remote station are lost.
- The local printer test is operated (Page 18).
- The call is disconnected for any reason (Page 17).
- Power is turned off.

• The telephone is disabled during the Data mode (receiving, dial or talk).

• The DATA key may blink indicating a short interruption in data signals (about 300).

• Transfer to Data cannot be completed if the answering station turned on power after the call was tested.

Note: The DATA key flashes during transfer from the Automatic Answer or Local Talk modes. If the transfer is not properly completed within 10 seconds, (ie, local or distant station does not go to Data mode, etc.) the DATA key will stop flashing, the call will disconnect, and the AUTO-ANSW key will light.

Arrangements With No Directly-Connected Telephones



Key lights in Data mode.

■ With key in **LOCAL** and **ALARM** lamps not lit, data can be sent and received on line.

■ The Data mode is under control of the external communications device or directly connected remote terminal. (See **TERM READY**.)

■ The **DATA** key is interlocked from operation.

AUTOMATIC ANSWER MODE KEY

(Arrangements With a Directly Connected Modular Telephone)



Key light is in Automatic Answer mode.

- When power is turned on, the telephone will be in the Automatic Answer mode. In this mode the telephone will be partially disabled. (No dial tone and no ringing or talking but the ringer can sound) and no printing or data transmission can occur.

- Telephone calls received in the Automatic Answer mode will be answered automatically after one ring on the telephone and the AUTO ANSWER key will turn off.

Note: The handset must be on-hook to answer the call.

- Following the ring, the telephone will automatically transfer to the Data mode only after the remote registering station transfers to the Data mode.

- The Automatic Answer mode can also be initiated:

- Automatically — following calls in the Data mode. (See Page 13 and 14 for Data mode.)
- Automatically — following a flashing DATA key when a call is not completed.



- Depressing AUTO ANSW key momentarily after local operation or talking on the phone. (See Page 13 for Local Talk mode.) If depressed during Data mode the call will disconnect.

- The Automatic Answer mode can also be initiated by:

- Opening the cover.
- Operating local printer test.
- Returning pager.
- Manual transfer to Local Talk mode.
- Turning off power.

Arrangements With No Directly Connected Telephone



Key light indicating Terminal Ready mode.

■ When power is turned on, the TERM READY lamp will light, indicating a standby condition during which calls may be originated or answered.

■ When calls are complete and data communication is established as indicated by the DATA lamp lighting, the TERM READY lamp turns off.

■ The Terminal Ready mode can also be terminated by:

- Opening the cover.
- Operating local printer test.
- Removing paper.
- Manual transfer to Local Talk mode.
- Turning off power.

■ The Terminal Ready mode can be entered by depressing the TERM READY key momentarily. If depressed during the Data mode, a telephone call may disconnect or DATA lamp may extinguish.

■ On private line arrangements, the TERM READY lamp lights only when the terminal is ready but the mode terminal or external data set is not ready.

TRANSFER TO TALK

(Arrangements With a Directly Connected Modular Telephone)

Calls can be transferred from the Data mode to the Talk mode. (See Page 5 for transfer back to the Data mode.)

To transfer to the Talk mode, lift the handset and depress the LOCAL TALK key at each station.

Note: If the LOCAL TALK keys are not depressed within 4 seconds of each other a possible disconnect or transfer to the automatic answer mode may occur. This can be avoided by answering "go to talk" signals that should be exchanged before the transfer is initiated.

(Arrangements With the Directly Connected Telephone)

Call transfer to Talk from the Data mode is under the control of external data communications devices and any associated telephone. Transferring to the Local mode may cause a disconnect. Normally, however, the external communications device will cause the DATA lamp to extinguish and the TALK READY to light when transfer to Talk is initiated.

DISCONNECTING TELEPHONE CALLS

- Telephone calls in the Local Talk mode will be disconnected when the handset is placed on-hook.
- Transfer to automatic answer from the Local Talk mode or incomplete transfer to Data (after 30 seconds) will also disconnect the call.
- Telephone calls in the Data mode may be disconnected when:
 - An EOP is received.
 - The pollster test is initiated.
 - Manual transfer to Automatic Answer.
 - Transfer to Local Talk mode (disconnects after 4 seconds if handset is on-hook).
 - Eight line feeds received on-line after the ALARM key lights due to a paper-out condition (special feed only).

INTERLUPT AND ALARM KEYS



Key lights when communication has been interrupted by the remote station.

Note: The use of this key is system-dependent. It may not be operable with some remote stations. When operable, its use should be under direction of the system.

■ The INTERRUPT key operates as follows:

- It lights under control of the remote station. When lit, keyboard sending is disabled.
- If depressed momentarily when lit, the interrupt is cancelled.
- If depressed when not lit, the remote station sending may be interrupted i.e., stop sending. Locally held rings and key lights momentarily.
- Interrupt is also cancelled by a disconnect or when power is turned off.



Key lights or flashes when alarm condition exists.

■ Lights when:

- Paper-out condition is sensed (triction back). This is an advance warning that eight round line feeds later (in the Data mode), the roll will

disconnect. Also, after trictions line feeds, paper will be out of the print head.

- Low paper condition is sensed (triction back). This is an advance warning that 25 to 50 feet of paper remains on the paper roll.
 - When the cover is opened.
 - When printer test is operated.
- ### ■ Flashes when:
- Triction is in a Lockback Test mode.
- ### ■ Can be cleared by:
- Replacing paper or closing cover.
 - On triction feed printers, if a partially full paper roll is installed, it may be necessary to depress the RESET key on the paper roll support. See Page 18.
 - When flashing by:

ESC = sequence.
Expressing LTR/AL, F&H key.
Turning off power.

Note: In some systems, the ALARM key may be flashing during normal operation accompanied by printing. Unless otherwise instructed, the Alarm should be cleared after extended periods of flashing. See Page 20.

SPECIAL KEYBOARD CHARACTERS

- Codes for the following characters are generated from the 48 Teletypewriter keyboard by use of the CTRL. key and the key with the symbol shown, operated together.

These characters are not functional in the Model 48 Teletypewriter but may be used in some systems.

DC1	RM	GS	VT	QTN
RTB	PLAK	ROM	PF	PCA
BSQ	HT	DCE	DS	BS
DCE	SI	ACE	CAN	FS
DC4	SLE	SE	ETC	WUL

- The special escape sequences listed below (in addition to those on Page 4) are functional in the 48 Teletypewriter by sending (or receiving) the character immediately following the escape character (ESC key).

Use of other escape sequences are system dependent. (Characters following ESC will not print).

ESC > Analog Loop-Back
 ESC < Digital Loop-Back
 ESC = Clears either Loop-Back
 ESC = Returns carriage and paper advance rest line.

Completely functional only on arrangements with a directly connected multi-line teletypewriter. Always loop may not work.

Used under control of remote station.

- Speed, speed varies depending on TO, DR rate on line and approximately 90 cps locally.

- The modular telephone directly connected to the RTT Telephone is used in accordance with the originating, answering and disconnecting procedures on Pages 6 and 17. In these arrangements other phones cannot be used to originate data calls. The phone may be or have an extension and therefore would be subject to the limitations of extension telephones, for example:
 - Lifting handset, dialing or talking in an extension-pair interface with data transmission.
 - Calls may not be disconnected if the extension is off-hook.
- In some cases, the modular phone may be a "designated" extension of a key telephone set. These extensions may be arranged (by use of an indication feature) to prevent interference from other phones. The installer should indicate the presence of any extension phones on the directory card.
- Key telephones may be associated with external data sets connected to the terminal. Use of these phones to originate and answer talk and data calls are under the control of the data set and should be specified locally.

WHEN TROUBLE OCCURS

Trouble that is encountered with the terminal should be reported as locally specified, & action to be called in case of trouble may be entered on the flow-keep card pulled by the terminal.


If it can be determined that the trouble is in the remote equipment, the attendant at the location in trouble should follow local procedures for that area.

The following table of analysis questions is arranged to aid in the isolation of a trouble item:

- Local connection.
- Connection at the remote location.
- Advising service personnel in advance of trouble call of Analysis Question results.

Before reporting a trouble, follow the *Analysis Questions* in the table always starting with Question no. 1 and then proceed according to the "Yes" or "No" direction on the following page.



ANALYSIS QUESTION	YES	NO
<p>1. Are one of the three communication mode keys lit?</p> <p>■ LOCAL or LOCAL-TALK</p> <p>■ RTA</p> <p>■ TERM REQUEST or AUTO ANSW</p>	Go to 2.	<p>1. Check that power switch is on.</p> <p>2. Check that power cord is connected.</p> <p>3. Check source of power. (Wall switch, other equipment OK, circuit breaker, etc.)</p> <p>4. Report as local trouble in equipment.</p>
<p>2. Does test message print properly while the PRINTER TEST key is depressed? (See Page 29.)</p>	Go to 3.	Go to 3.
<p>3. Is red lamp on power supply lit? (Flashes through slot in handle side slot from the left.)</p> 	Report as local trouble in printer.	Report as local trouble in power supply.
<p>4. Does printer respond properly to keyboard operation? (Local-Talk mode)</p>	Go to 8 on terminals with a directly connected telephone. Go to 11 for other arrangements.	Report as local trouble in keyboard.

ANALYSIS QUESTION	YES	NO
<p>6. Does station respond properly to keyboard operation in Analog Loop-Back mode? (ie, print double (ie, full display.) (Entered from keyboard in Local Talk mode by SSC.) responses, coded by SSC =.) (Answer: DATA key to light, ALARM key flashes.)</p>	Go to 8.	Report as local trouble in "modules".
<p>7. Does telephone operate normally in the Local Talk mode? (Call tone, ringing, ringing, talk)</p>	Go to 8.	<ol style="list-style-type: none"> 1. Check that modular cords are connected at rear of telephone and phone. 2. Go to 1.
<p>7. Does telephone operate normally when connected directly to line? (ie, modular cord from line connected to phone)</p>	Report as local trouble in telephone.	Report as local trouble in telephone.
<p>8. Does phone ring repeatedly in Automatic Answer mode? (ALARM key not lit.)</p>	Report as on-line trouble in telephone.	Go to 8.
<p>8. Does DATA key light following call in Automatic Answer or when DATA key is depressed after originating call? (Connection established.)</p>	Go to 13.	<ol style="list-style-type: none"> 1. Remote system must also go to Data mode. 2. Check that modular cords are not reversed, ie, improved should go to phone. 3. If key does not flash or light, report as trouble in telephone. 4. Go to 13.

ANALYSIS QUESTION	YES	NO
10. Is proper tone heard in handset? (High tone if remote party answered the call automatically or transferred to data.)	Report as on-line trouble in telephone. (Call does not transfer to Data mode.)	Trouble may be in remote station. (Call does not transfer to Data.)
11. Are data messages properly sent and received in the Data mode?	Go to 12.	<ol style="list-style-type: none"> 1. Check proper speed, DUPLEX and FIDELITY key positions. 2. Check that D-TIME key is off. 3. Report as on-line trouble in telephone unless trouble occurs with only one other station.
12. Is trouble present but not isolated by Questions 1 through 11?	Report other troubles as specified in local instructions.	



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